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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,552	11/13/2001	Rajagopalan Srinivasan	NUS-14	6759

7590 06/30/2004
Pandiscio & Pandiscio
470 Totten Pond Road
Waltham, MA 02451-1914

EXAMINER

MILLER, CRAIG S

ART UNIT PAPER NUMBER

2857

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/008,552	SRINIVASAN ET AL.	
	Examiner	Art Unit	
	Craig Miller	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-12, 15, 23 and 27 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 13, 14, 17-22 and 24-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/4/02 + 9/29/03</u> | 6) <input type="checkbox"/> Other: _____ |

1. Applicant's election of species group #1 in the paper filed 19 March 2004 is acknowledged. Because Applicant did not distinctly and specifically point out any supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

3. Claims 1-5, 7, 10-12, 15 and 27 are rejected under 35 U.S.C. 103 as being unpatentable over Wegerich *et al.* (US 2002/0128731 A1)

As to claims 1-3, 15 and 23, Wegerich *et al.* discloses a computer process control system containing known modes and transitions (paragraph 9), measurement system of process data (Fig. 2), a comparator to identify process mode and transition (paragraph 26 and abstract) and a statistical testing module for determining if a measured value is within normal range (paragraph 26). Wegerich *et al.* does not specify that that the statistical testing module identifies abnormalities by way of range checking. It is well known within the art of process control systems that measured value abnormalities may be determined via range checking. Because the device of Wegerich *et al.* discloses that measured values should be considered for any abnormality and because range checking is a well known process of determination of such abnormalities, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the statistical consideration of Wegerich *et al.* for known range checking, each performing similar functions in similar ways, so as to receive the expected benefits derived there from such as

increased system repeatability absent a showing of unexpected results or synergistic effect from any particular claimed combination.

As to claim 4, said claim is directed towards the process having a second mode after the transition. In the abstract, Wegerich *et al.* discloses in the abstract, "...*is in transition from one state to another.*"

As to claims 5, 10-12 and 27, said claim is directed towards identifying based upon historical data. Wegerich *et al.* discloses such in paragraph 30.

As to claim 7, said claim is directed towards accepting operator input as to the known process state or transition. Wegerich *et al.* discloses automated determining of process state and/or transition and operator input for training data selection (paragraph 56). The Examiner notes that it is well known to remove an element and its associated function, assuming the remainder of the invention functions as before, In re Karlson, 136 USPQ 184 (CCPA 1963), In re Wilson, 153 USPQ 740 (CCPA) and Ex parte Rainu, 168 USPQ 375 (PTO Bd. Of Appeals 1969), "*Omission of an element and its function where not needed is obvious.*" Therefore, because it is known to remove an element and its associated function and because Wegerich *et al.* discloses that user input in general is useful within process control training, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the disclosed automated training with known manual training so as to receive the expected benefits derived there from such as increased system reliability absent a showing of unexpected results or synergistic effect from any particular claimed combination.

4. Claim 6 is rejected under 35 U.S.C. 103 as being unpatentable over Wegerich *et al.* as applied to claim 1 above and further in view of Kirmsse *et al.* (5,192,845).

As to claim 6, said claim is directed towards identifying based upon theoretical data. Kirmsse *et al.* discloses that machine processes may be modeled using measured and theoretical data. Because Wegerich *et al.* discloses using measured data for state identification and because Kirmsse *et al.* discloses that a combination of measured data and theoretical data should be used to control processes, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include modeled theoretical data along with measured data within process

state determination calculations, each performing similar functions in similar ways, so as to receive the expected benefits derived there from such as increased system flexibility absent a showing of unexpected results or synergistic effect from any particular claimed combination.

5. Claims 8, 9, 13, 14, 17-22 and 24-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims or if said rejection were overcome.

6. The Examiner notes that the prior art of record neither discloses nor suggest determining within a transition detection either enhanced states, sub-section, sub-states or lower-level groups.

7. The prior art made of record but not relied upon is deemed pertinent to applicant's disclosure.

Bankert *et al.* (5,633,800) discloses modeled expert system process monitoring.

Treiber *et al.* (6,654,649 B2) discloses dynamic process control adjustment.

Gade *et al.* (6,721,610 B2) discloses ignoring transitions within a process control system.

Moebius *et al.* (US 2002/0040814 A1) discloses detects errors if transition not completed within expected times.

8. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Craig Steven Miller whose telephone number is (571) 272-2219. Central facsimile services are now available at (703) 872-9306.

The Examiner can normally be reached on Mondays, Tuesdays and Thursdays from 7:30am-4:00pm EST. Should repeated attempts to reach the Examiner be unsuccessful, the Examiner's Supervisor, Marc Hoff may be reached at (571) 272-2216.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2800.

Craig Steven Miller (ss)
23 June 2004


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2857